

### **REMARKS**

Claims 1-20 are pending in this application. The Examiner rejected Claims 1-3, 8-10, and 15-20 under 35 U.S.C. 102(e) and indicated that Claims 4-7, and 11-14 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Ikeda* Does Not Anticipate**

#### **the Invention of Claims 1-3, 8-10, and 15-20**

The Examiner rejected Claims 1-3, 8-10, and 15-20 under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,643,041 to Ikeda et al. ("*Ikeda*"). This rejection is traversed for the reasons discussed below.

#### **Claim 1**

The method of Claim 1 requires, among other elements, the step of converting a protection path into a working path temporarily in order to increase a bandwidth of the working paths when a bandwidth increase request occurs in the path network. According to the present invention recited in Claim 1, when there is a need to increase the transmission capacity of the working path, an optical path that is already set up as a protection path is temporarily converted into a working path in order to increase a bandwidth of the working paths in response to a bandwidth increase request.

*Ikeda* describes an optical network that is capable of flexibly selecting protection optical paths upon the occurrence of a failure without depending on the installation of an additional optical fiber. In *Ikeda*, the optical paths can play both working and protection roles according to instructions from the respective transmission equipment. In *Ikeda*, the working optical path is an optical path for transmitting a desired signal, whereas the protection optical path is an optical path that can be used to replace the working optical path when some failure occurs (see Column 4, lines 41-50). For example, when priorities are assigned to all the working optical paths, the working optical paths given lower priorities can be also called spare or protection optical paths (see Column 9, lines 11-18).

The Examiner contended that *Ikeda* discloses the claimed converting step at Column 9, lines 7-9. However, the cited section of *Ikeda* only describes that the distinction between the working path and the protection path is merely a matter of logical designation and any given optical path can be used either as a working path or as a protection path depending on the occurrence of a failure. *Ikeda* fails to describe conversion of an already set up protection path into a working path for the purpose of increasing the bandwidth of the working paths. *Ikeda* describes that a protection optical path essentially replaces a working optical path when there has been a failure. The use of the protection optical path does not increase the bandwidth.

In *Ikeda*, the optical paths are increased by providing sets of equipment for terminating a working path when there is a need to increase the transmission capacity of the working path. Fig. 5 illustrates that an additional working path 44-1 is added (see Column 12, lines 14-28) to increase the bandwidth. This is equivalent to the conventional method for searching idle paths and opening the detected idle paths to serve as the working path, as described in the background section of the present specification (see page 2, line 5 to page 3, line 19 of the present specification). As pointed out in page 5, lines 20-24 of the present specification, a disadvantage of the conventional method for increasing the optical path bandwidth as disclosed by *Ikeda* is that it cannot handle the case of an abrupt traffic variation because it requires a time consuming idle resource search. In contrast, the present invention uses the working path and a protection path that has been converted to a working path to increase the bandwidth.

As discussed above, *Ikeda* fails to show or suggest any temporary conversion of a protection path into a working path or the use of both the working path and the converted path to increase a bandwidth of the working paths, as required by Claim 1. Accordingly, Claim 1 is not anticipated by *Ikeda*, and Claim 1 should be allowed.

**Claims 2-3, 8-10, and 15-20**

Claims 2-3 depend either directly or indirectly from independent Claim 1. The remarks made above in support of the patentability of independent Claim 1 are equally applicable to distinguish the dependent claims from *Ikeda*.

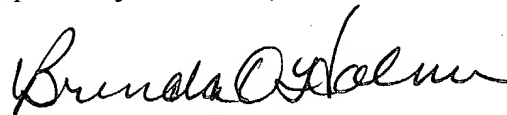
Claims 8, 15, and 18 contain similar limitations to Claim 1. The remarks made above in support of patentability of Claim 1 are also applicable to distinguish the corresponding network, transmitting node, and receiving node claims of Claims 8, 15, and 18, as well as their respective dependent claims, Claims 9-10, 16-17, and 19-20.

Accordingly, Claims 2-3, 8-10, and 15-20 should also be allowed.

**CONCLUSION**

The foregoing is submitted as a complete response to the Office Action identified above. This application should now be in condition for allowance, and the Applicants solicit a notice to that effect. If there are any issues that can be addressed via telephone, the Examiner is asked to contact the undersigned at 404.685.6799.

Respectfully submitted,



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